CALFED Bay-Delta Program Project Information Form

I. Watershed Program - Full Proposal Cover Sheet

Attach to the cover of full proposal. All applicants must fill out this Information Form for their proposal. Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.

1. Full Proposal Title: Yosemite Watershed Restoration Assessment Project
   Concept Proposal Title/Number: Assessing the Restoration of Water Quality and Ecological Function in the Yosemite Creek/Slough Watershed: Integrating Environmental Justice into a Community-based Model for Urban Watershed Management
   Applicant: Bayview Hunters Point Community Advocates/Arc Ecology
   Applicant Name: Olin Webb, Executive Director/Saul Bloom, Executive Director
   Applicant Mailing Address: 5021 3rd Street, San Francisco, CA 94124/see below for Arc Ecology
   Applicant Telephone: (415) 671-2862 Applicant Fax: (415) 671-2863 Applicant Email:
   Fiscal Agent Name (if different from above): Arc Ecology
   Fiscal Agent Mailing Address: 833 Market Street, Suite 1107, San Francisco, CA 94103
   Fiscal Agent Telephone: (415) 495-1786 Fiscal Agent Fax: (415) 495-1787 Fiscal Agent Email: arc@igc.org

2. Type of Project: Indicate the primary topic for which you are applying (check only one)

_____Assessment	_____Monitoring
_____Capacity Building	_____Outreach
_____Education	__x__Planning
_____Implementation	_____Research

3. Type of Applicant:

_____Academic Institution/University	_____Non-Profit
_____Federal Agency	_____Private party
_____Joint Venture	_____State Agency
_____Local Government	_____Tribe or Tribal Government

4. Location (including County):

   What major watershed is the project primarily located in:
   _____Klamath River (Coast and Cascade Ranges)
   _____Sacramento River (Coast, Cascade and Sierra Ranges)
   _____San Joaquin River (Coast and Sierra Ranges)
   __x__Bay-Delta (Coast and Sierra Ranges)
   _____Southern CA (Coast and Sierra Ranges)
   _____Tulare Basin (Coast, Sierra and Tehachapi Ranges)

5. Amount of funding requested: $_771,000_____
   Cost share/in-kind partners? __x__Yes _____No
   Identify partners and amount contributed by each:
   Arc Ecology, $130,000

6. Have you received funding from CALFED before? _____Yes __x__No
   If yes, identify project title and source of funds:

By signing below, the applicant declares the following:

1. The truthfulness of all representations in their proposal
2. The individual signing this form is entitled to submit the application on behalf of the applicant (if the applicant is an entity or an organization)
3. The person submitting the application has read and understood the conflict of interest and confidentiality discussion in the Watershed Program Proposal Solicitation Package and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent provided in the Proposal Solicitation Package.

Saul Bloom, Arc Ecology
Printed name of applicant

_____
Signature of applicant

FULL PROPOSAL

Assessing the Restoration of Water Quality and Ecological Function in the Yosemite Creek/Slough Watershed: *Integrating Environmental Justice into a Community-based Model for Urban Watershed Management*

1. Describe your project, its underlying assumptions, expected outcomes, timetable for completion, and general methodology or process.

A. Project Summary

Yosemite Creek/Slough (Yosemite Watershed) in the Bay View-Hunters Point community located in the City and County of San Francisco. Bay View-Hunters Point is a low-income community largely comprised of people of color. Cumulative air, land, and water pollution disproportionately affect the community; it has some of the highest rates of breast and cervical cancer, asthma, and respiratory illnesses in California. Over 100 brownfields sites, two large power plants, a heavily contaminated Naval base, and the city's sewage treatment facility are contained within this five square miles community.

The upper reaches of the Yosemite watershed have been almost entirely urbanized. The middle reaches of the watershed are heavily dominated by polluting and outmoded industrial and commercial land uses mixed within a historically residential neighborhood. The lower portion of the watershed contains the Naval Shipyard, which has severe land and subsurface contamination from point and nonpoint sources, a sewage outflow structure that creates water quality impacts during large storm events, several upstream landfills, and open space that was historically used for waste and fill disposal. Roughly two thirds of the Hunters Point Shipyard can now be said to be in the Yosemite Watershed. As a result of these land uses and development in the watershed, Yosemite Creek/Slough contains contaminants in its submerged lands, has experienced significant loss of ecological function and habitat for aquatic and avian species, and presents a health hazard for those who utilize it for recreation and subsistence. To date, the land use planning and development processes in BVHP have not included any watershed level analysis and management approach.

The two-year timeline for this project coincides nicely with the implementation schedules for the redevelopment activities in BVHP and the Naval Shipyard. The convergence of these planning projects provides a unique opportunity for synergy and sharing matching funds. The project's ability to provide value-added and timely information to the overall planning effort in BVHP has resulted in strong support from both of these redevelopment efforts. The city is also poised to invest funds in water infrastructure improvements and would be well informed by the watershed assessment and management plan developed by the project. And, maybe most importantly, the project has the potential of providing multiple benefits -- be it ecological, social, economic, or health-related -- to the community and in the process restore the watershed so that it is an asset to Bay View-Hunters Point.

The project's primary goals are:

- To identify and address the water quality impacts on the Yosemite Creek/Slough;
- To improve water quality for the BVHP community and that portion of San Francisco Bay-Delta impacted by Yosemite Slough;
- To improve access to restored habitats and natural areas in the BVHP community.

To implement these goals we will undertake assessment, planning, monitoring/evaluation, and develop a model for future urban, water quality, ecosystem restoration, and water use efficiency in an environmental justice context.

Project Timelines: Four years (First Phase: Assessment - two years, Second Phase: Restoration - two years)

Proposed Project Timeline: We are seeking funding for the first, two year phase of the project

In this first phase of a long-term effort to restore this urban watershed, the project will conduct a community-based watershed assessment aimed at identifying the water quality impacts on, and ecological conditions of Yosemite Creek/Slough.

The watershed assessment will include:

a) Community skills training, education, capacity-building, and technical assistance, targeted to youth, seniors, and unemployed/underemployed local residents, landowners and organizations, as critical components.

The program will also institute:

b) A community-based watershed planning process and design a restoration and management plan for the Yosemite Slough watershed, informed by the results of the assessment. This community, watershed, planning effort will link with existing redevelopment plans for Bay View and the Hunters Point Shipyard cleanup;

c) A much-needed watershed management perspective and baseline data to inform on-going redevelopment plans and water infrastructure investments. It will also entail the added benefits of connecting upstream communities to the Slough – by raising their awareness - to improve water quality and stormwater overflow problems; and

d) Examine the impact of sewage treatment plant outflow, urban water quality best management practices, will daylight creek/stream function, identify impervious surface/non-point source runoff, and evaluate the opportunities for the restoration of surrounding wetlands.

Community-based Watershed Assessment: The Program will conduct a community-based assessment of the entire Yosemite watershed to address the water quality related issues that directly impact the Bay View-Hunters Point community and its residents and the San Francisco Bay. The assessment will be comprised of, but not limited to, the following components:

a) Definition and delineation of the Yosemite watershed;

b) Examination of the pre-settlement conditions of the watershed and its underlying ecological functions and beneficial uses;

c) Examination of how these functions and beneficial uses have been adversely impacted by subsequent waves of unplanned and inequitable development; and

d) Identification of strategies to restore ecological functions necessary to achieve watershed health and beneficial uses identified by the local human and natural communities.

Community-based Water Quality Assessment: The project will seek to establish a water quality base line to use to establish restoration goals for Yosemite Slough. The assessment will consist of a University supported water quality sampling program using standard water quality assessment protocols and utilize the water quality assessment and analysis process to provide hands on experience to University and high school students as well as neighborhood residents. It will examine the impact of sewage treatment plant outflow, urban water quality best management practices, will investigate the opportunities to daylight creek/stream function, and identify impervious surface/non-point source runoff, and will examine the opportunities for the restoration of surrounding wetlands.

Community-based Wildlife/ Habitat Survey: The project will seek to establish a baseline wildlife and habitat survey for Yosemite Slough. The assessment will consist of a yearlong scientific census of the wildlife of the Yosemite Slough Watershed looking for birds, reptiles, amphibians and butterflies. Professional biological consultants will design the census to aid the Community Watershed Council's visioning process for the redevelopment of the Yosemite Slough Watershed of the neighborhood.

Community-led Educational Program on Ecological Restoration and Public Health: The project will, through established community-based organizations integrate Bayview Hunters Point schools into each aspect of the analysis, assessment, and restoration planning process to enhance understanding of the integration between ecological quality and human health. It will seek to develop within it student participants long-term appreciation for the importance of habitat and wildlife and ecological values through a hands on approach to learning. The project will also attempt to educate its student participants about the process of planning for environmentally sustainable redevelopment of the surrounding urban setting through the integration of Yosemite Slough restoration process into the planning for the reuse of the Hunters Point Shipyard, the development of the Fitch Street Causeway, improvements in Candlestick Point Recreation Area and Candlestick Park, and the San Francisco's pending multi-billion dollar upgrade of its wastewater collection and disposal system.

Community Technical Assistance and Capacity-building: The project managers will create partnerships between expert consultants and researchers and local community organizations; conduct a skills needs assessment of the community; and develop performance criteria for capacity-building programs. Technical assistance and training for local residents, staff of community-based organizations, and landowners will be an on-going component of the project to build the community's capacity for long-term stewardship of the watershed. Consultants and academic researchers will be required to work collaboratively with and transfer skills to community partners to undertake the watershed assessment and planning activities of the project. A Bayview-Hunters Point Watershed Council will be created, composed of local community-based organizations and their residential membership, local and regional nonprofit organizations working on watershed management and water quality issues, BVHP public schools, city and county government agencies, and various landowners adjacent to the watershed. The project will assist in the development of the Watershed Council's technical and organizational capacity to advocate, implement, and monitor the restoration and management plan.

Community-lead Watershed Council and Watershed Restoration and Management Plan: The watershed assessment will provide the foundation for the development of a restoration and management plan for the watershed. A community watershed planning process will be developed and implemented with broad community participation and include an advisory board comprised of community residents, local community organizations and businesses, city, state, and federal agencies, and various landowners adjacent to the watershed. A key component of the plan will be a community-based monitoring program.

Integration with On-going Redevelopment Planning Processes: Currently, there are two uncoordinated planning processes aimed at redevelopment of the Bay View-Hunters Point community and the Naval Shipyard. These planning efforts are not informed by watershed management considerations and will inevitably exacerbate water quality problems in the watershed. The watershed assessment and restoration plan will be integrated into the BVHP Redevelopment Survey Area Concept Plan and Naval Shipyard Restoration Plan to provide recommendations for watershed management and ecosystem restoration. Additionally, the City and County of San Francisco is planning a multi-billion dollar capital improvement program for both its water delivery and sewage disposal systems. The Mayor has established a task force to assess the infrastructure spending plans. One of the project partners represents the environmental community at that task force and will use the findings from this project to inform that process.

B. A Brief History of Yosemite Slough

Two hundred fifty years ago, Yosemite Creek was one of four major east-draining creeks in what is now the City of San Francisco. The headwaters were in what is now McLaren Park, and the creek debauched into San Francisco Bay at about where Yosemite and Wallace Streets meet Ingalls today. At the mouth of the creek was a tidal salt marsh of what is assumed to be a couple hundred acres (no remnant of that marsh remains today). The Yosemite Creek Watershed was bounded on the south by McLaren Ridge and Bayview Hill, which separated it from the Sunnydale Creek Watershed, and on the

north by Silver Terrace, Stony Hill and the Point Avisadero ridge, which separated it from the India Basin/Islais Creek Watershed. Several Ohlone seasonal camps are believed to have existed within the Yosemite Watershed.

Over time, with the coming of European settlers and the development of the City of San Francisco, the Bay was filled in so that none of the natural shoreline within the Watershed is now visible. On the south side of the Yosemite Slough watershed, Candlestick Stadium is on "real" ground; everything bayward of it is fill. As the area around the mouth of Yosemite Creek was filled, a narrow tidal inlet was retained, now called Yosemite Slough or Channel, or on one City map, "South Basin Canal." There is no Yosemite Creek today, except for a vestigial trickle that flows through the gravel bed upon which the culvert was laid. Like all creeks in SF (except for Lobos Creek in the Presidio and the North Fork of Islais Creek in Glen Canyon and some tiny streams in McLaren Park and elsewhere), the creek was put into a culvert, along with sewage and whatever goes down the storm drains. Much of the fill material was municipal garbage.

2. Describe your qualifications and readiness to implement the proposed project.

A. Describe the level of institutional structure, ability and experience to administer funds and conduct the project. Identify the fiscal agent responsible for handling the funds.

The proposed project is a collaborative of a number of well established, long term San Francisco Bay Area and Bayview Hunters Point community-based organizations, described below in section B.

Overall Program Management will be provided by a committee formed by representatives of the eight organizations currently participating in the collaborative.

Overall Program Coordination will be provided by Arc Ecology and the Bayview Hunters Point Community Advocates. Arc Ecology will serve as the fiscal agent for the program.

Project Coordination will be provided by the individual sponsoring organizations.

B. Organizational Qualifications

Arc Ecology is a San Francisco-based international organization providing environmental and economic technical support to communities working toward the cleanup, ecologcal restoration, and economic development of contaminated lands and public resources. Founded in 1983, Arc Ecology maintains a staff of environmental scientists, economist planners and community involvement specialists. Arc currently serves as the community Technical Assistance Grant contractor for the US EPA Technical Assistance Grant for the Fort Ord Superfund cleanup; was recently awarded a grant by the San Francisco Department of the Environment to provide environmental cleanup information to the BVHP community for the Hunters Point Shipyard; and serves on numerous public advisory commissions. Arc is the fiscal sponsor of Save San Pablo Baylands, which coordinates the annual Pacific Flyway Festival at the Mare Island facility and the San Francisco Bay Area Military Base Restoration Initiative. **Projects:** Program Administration, Fiscal Agency, Integration with Hunters Point Shipyard Cleanup and Reuse, Technical Peer Review

Bayview Hunters Point Community Advocates is a grassroots organization founded in 1995 by long time community leaders, Karen Pierce, Essie Webb, and Harvey Matthews. Its Executive Director Olin Webb is a nationally respected leader of the environmental justice movement. As long time members of the Bayview Hunters Point community, a historically African-American neighborhood that reflects the effects of many years of economic, social, and environmental racism, the Advocates are dedicated to strengthening residents' control over the economic and environmental forces that shape their lives. The Advocates operate an office in the very heart of the Bayview Hunters Point neighborhood in order to provide the community with up to the moment information on fast-breaking issues and to keep ourselves current on community concerns. Its office has evolved into a community center where people come to seek information, job leads, and connections to support for their ideas. Its

major projects include coalition building; community education to assist neighborhood residents in their understanding of environmental hazards; community organizing to amplify the voices of unheard community members; and direct services including job placement services for blue-collar skilled and unskilled residents – primarily young African Americans who have been frozen out of the job market. **Projects:** Program Administration, Visioning Coordination, Wetlands Council Planning and Organizing, Community Outreach and Education

The Alliance for a Clean Waterfront (Alliance) is a coalition of 15 environmental, neighborhood, and community organizations formed in 1997 to address common issues relating to San Francisco's shoreline, especially the impacts of accelerating development on the combined sewage/ stormwater system. These include a decrease in Bay water quality as well as an increase in the disproportionate burden placed on San Francisco's Southeast Community, where 80% of the City's sewage is treated. The Alliance's mission is to promote the protection of San Francisco's water resources by advocating: reduction and elimination of sewage overflows and polluted stormwater runoff; implementation of wastewater treatment alternatives; increased water conservation and reuse; cleanup of contaminated soil and groundwater; environmental restoration and enhancement; and environmental justice. **Projects:** Waste Water and Sewage, Public Utilities Commission Strategic Plan

Clean Water Fund (CWF) is a national §501(c)(3) research and education organization, founded in 1976, which promotes the public interest in protection of natural resources, with a special emphasis on water issues. CWF's programs build on and complement those of Clean Water Action (CWA), a 700,000 member national §501(c)(4) organization. CWA is a national citizens organization working for clean, safe and affordable water, prevention of health-threatening pollution, and empowerment of people to make democracy work. CWA has approximately 20,000 California members. **Projects**: Pollution Sources Analysis, Historical/Cultural Watershed Inventory, Water Conversation/Water Use Efficiency Training

The Golden Gate Audubon Society is a Chapter of the National Audubon Society. Its geographic area includes the cities of San Francisco, Oakland, Emeryville, Berkeley, Richmond and all the areas along the East Bay shoreline to San Pablo and the towns of Orinda and Moraga. Our organization has a long history of science, advocacy and education. In 1994 we held, with the College of Alameda, a Scientific Symposium on the Natural Resource Values of the Alameda Naval Air Station. Through our advocacy efforts we saved 450 acres of wetlands on lands owned by the Port of Oakland and then, working with the Port, restored 72 acres of historic wetlands to functioning tidal and seasonal wetlands (a $2.5 million project). As part of this project we now lead a 5-year bird monitoring project on this site, designed by professional consultants and carried out by our staff and volunteers. We have environmental education programs in the cities of Alameda and Oakland that train high school students to be docent instructors on biological education curriculum. We have initiated a Save the Quail Campaign in San Francisco that has been endorsed by the Mayor and Board of Supervisors. **Projects:** Wildlife Resources Census Management, Wetlands Restoration Project Management.

Literacy for Environmental Justice (LEJ) is a youth empowerment and environmental justice education organization serving southeast San Francisco since 1998. LEJ's mission is to foster the principles of environmental justice and urban sustainability in young people to promote long-term community health. **Projects:** Wildlife Resources Census Youth Outreach and Educational Coordination.

University of San Francisco: Monitoring of water quality will be directed through the University of San Francisco with a focus on local K-12 students. This will include both science and arts faculty. The science teachers will focus their efforts on water sampling techniques and reasoning for these samples using current scientific understanding of principles of water quality with direction from University of San Francisco faculty. Arts teachers will be used to develop an appreciation for improving water quality and the impact on the local environment. Training will be conducted by University of San Francisco personnel. **Projects:** Water Quality and Ecological Risk Assessment

B. Describe technical support available (including support needed for environmental compliance and permitting) to begin and complete the project in a timely manner.

Because this proposal is specific to the assessment phase of the program, environmental compliance and permitting technical support is not required.

As regards technical support, most of the organizations involved in the program possess their own in-house resources sufficient for managing their projects. Some additional specialized technical support is required however. The project areas requiring additional technical consulting include:

- Wildlife Census: Educational Consultants
- Wetlands Restoration: Engineering Consultants
- Sewage Treatment: Alternative Sewage Handling and Treatment Consultant

Costs of these items are reflected in the Task Description Budget attached at the rear of this proposal.

C. List any previous projects of this type you or your partners have implemented, funded either by CALFED or other programs.

Please see 2B

3. Budgetary Information

A. Provide a completed budget cost sheet and describe the basis for determining project costs, including comparisons with other similar projects, salary comparisons, and other listed costs.

See Attached Budget

B. Include all costs of environmental compliance, such as CEQA and/or NEPA, and permits.

Because this proposal deals with the assessment phase of the project, CEQA, NEPA and permits are not applicable because no proposed project is yet ready for evaluation

C. Describe how the approach to achieving the stated goals of the project demonstrates an effective cost relative to its anticipated benefits.

Yosemite Slough is currently a heavily contaminated, degraded environment. The fishing pier located on its western side no longer reaches water as a result of the lack of serious environmental preservation of the site. The research and analysis conducted by the collaborative will result directly in the implementation of restoration activities in the second phase of this program. The ecological and community health enhancements, as well as the improvements in the aesthetic and recreational qualities from the implementation of a restoration program in the second phase, will be of tremendous benefit to Bayview Hunters Point and San Francisco Bay. Nonprofit collaboratives have a well-proven track record for delivering high quality analysis and community educational programs. The collaborative represented in this proposal combines the talents and experience of some of the San Francisco Bay Area's leading regional and neighborhood environmental and environmental justice organizations. To bring together these resources in a for-profit setting to accomplish these same tasks would cost several millions of dollars. Similar programs managed by the Navy at the Hunters Point Shipyard, which occupies the northern reach of Yosemite Slough, cost the taxpayers tens of millions of dollars. Furthermore, the use of already generated federal, state, and local research on the areas will continue to reduce the costs of the project relative to those activities requiring entirely new investigations.

4. Describe the technical feasibility of the proposed project.

The proposed program is fairly straightforward and composed of tried and true strategies for assessing the feasibility of rehabilitating Yosemite Slough. San Francisco and the Navy are already committed to site rehabilitation on the north and western reaches of the slough. The State is committed to the rehabilitation and maintenance of the recreational area on the south side. Additionally, the City of San Francisco has received, and not spent, grant funding from the US Environmental Protection Agency to assess the feasibility of alternative stormwater treatments at both Hunters Point Shipyard and Candlestick Park. This Project will bring together these disparate and uncoordinated studies and plans into a comprehensive framework to restore that part of the Watershed.

A. Describe any similarity to previously implemented successful projects in this community or elsewhere.

The recent construction of the Crissy Field wetlands (which is at the lower end of the Tennessee Hollow watershed at the Presidio), the creation of the Don Edwards San Francisco Bay Wetlands, and the creation of the Arcata Sewage Treatment Wetlands are three examples of similar projects in the area. These projects demonstrated that like Yosemite Slough, previously contaminated lands at a former military toxic cleanup site as in the case of the Presidio and at commercially polluted and degraded sites as in the case of Don Edwards and Arcata could be rehabilitated successfully.

B. If the project proposes a new approach or new method with a high likelihood of adding new knowledge and or techniques, or with the potential to fill identified gaps in existing knowledge, describe how it will do so, and what monitoring components will provide substantiation of results.

The project is designed to fill current data gaps in knowledge regarding the water quality, the wildlife and habitats provided by the Yosemite Slough. The collaborative proposes no new methodologies for assessing the quality, history and surrounding urban uses of Yosemite Slough and follows a phased approach consisting of identifying historical and current impacts, interviewing surrounding neighbors, site inspections and remedial investigation similar to standard “Superfund” style model.

Where the collaborative’s process departs from the norm is in its tight integration of the Bayview Hunters Point Community representatives within our group, and our commitment to environmental justice objectives and community-based leadership.

Arc Ecology, the project’s fiscal sponsor, is a well-respected technically-based organization currently provides community oriented peer review for the environmental remediation and restoration of eight closing military bases in Northern California. As part of its fiduciary responsibility under its status as fiscal agency, Arc Ecology will provide peer review for the technically focused activities of the collaborative. Where Arc Ecology lacks in-house technical expertise to address aspects of this program, it will obtain pro-bono services (which will be applied towards the in-kind match) from colleague organizations in the field in question. The Bayview Hunters Point Community Advocates will provide community-based peer review regarding the quality of the integration of community organizations, institutions, and residents within the non-technical, educational, and City planning surveying for the project.

C. Explain how the finished project will be maintained as necessary, and to what degree it may require continued funding from outside the community.

The collaborative is seeking funding for its first phase assessment of the requirements for the restoration of Yosemite Slough; as such it is premature to speculate on the long-term requirements for maintaining the completed program.

5. Describe how the monitoring component of the project will help determine the effectiveness of project implementation and assist the project proponent and CALFED with adaptive management processes.

A. Identify performance measures appropriate for the stated goals and objectives of the project.

Water Quality Assessment: Performance measures will be based on the effectiveness and reliability of sampling results, disseminating the data in the community, and in influencing implementation of the redevelopment plan including: 1) Establishment of baseline data set for the creek water quality; 2) Effectiveness of the dissemination of collected water quality data amongst collaborative members, the Bayview Hunters Point community, and the entities coordinating the redevelopment of the surrounding urban areas; 3) The use of the results of the baseline data to chart water quality improvement by redevelopment projects ongoing in the urbanized areas surrounding the Slough; 4) The usefulness of the data in supporting the implementation of the restoration of the Slough and surrounding wetlands and habitat in the second phase of this project. Performance of the student education aspect of this project will be done through surveys of the participants.

Wildlife Census and Habitat Survey: Performance measures will be based on the effectiveness and reliability of the data produced by the yearlong scientific census of the wildlife of the Yosemite Slough Watershed. The census will look for birds, reptiles, amphibians and butterflies, and be reviewed against material developed by the Navy for its eco-risk assessments for Parcel E of the Hunters Point Shipyard and the State of California for the Candlestick Point Recreation Area. Performance of the student education aspect of this project will be done through surveys of the participants.

Natural and Land Use Historical and Current Activities Survey: Performance measures will be based on the thoroughness of the research, accuracy of the pollution input data, quality of mapping, and integration of information into the second phase of this program and other activities around Yosemite Slough.

Other Performance Measures

1) Effectiveness of projects at meeting environmental justice objectives (involvement of Bayview Hunters Point community-based organizations outside of the collaborative in baseline research, assessment activities, and second phase visioning, improvement in the quality of information available to the Bayview Hunters Point community, "community acceptance" of program).
2) Effectiveness of inter-organizational coordination and collaboration.
3) Success at identifying support and funding for implementation of program's second phase.
4) Outcomes of the school stewardship program will include:
    - A targeted outreach plan for high school and college aged student groups to aid in monitoring and restoring Yosemite Slough.
    - Outreach materials for the site.
    - An Educator's site manual for the Slough (created in partnership with Council members).
    - At least 8 student groups will participate in pilot programs at the site (elementary, middle school, high school, and college aged groups).

B. Describe how this project will coordinate with and support other local and regional monitoring efforts.

There are ongoing wildlife monitoring programs throughout San Francisco Bay. These programs help give a picture of the health of our wildlife communities which in turn give a picture of the health of our Bay and its contributing watersheds. The US Fish and Wildlife Service and the Department of Fish

and Game both monitor waterfowl and shorebird populations in the Bay Area. The California Academy of Sciences in conjunction with the Golden Gate Audubon Society have begun the process of establishing a wildlife and native plant assessment for San Francisco. This information will provide valuable data when considering how best to redevelop the Bayview/Hunters Point Community so as to include a component that allows for the preservation and restoration of wildlife habitat including wetlands and riparian corridors. The Golden Gate Audubon Society is currently undertaking a 5-year bird census program for the Martin Luther King Jr. wetland restoration project in San Leandro Bay. The Yosemite Slough monitoring program can help provide a Central Bay regional look at waterbirds and other wildlife.

The Navy is conducting ongoing remedial activities at the Hunters Point Shipyard, which makes up most of the northern portion of the Yosemite Slough watershed and the City of San Francisco is in the process of developing its reuse strategy for the facility. Arc Ecology sits on both the Restoration Advisory Board – providing community-base peer review for the Navy cleanup program, and the Hunters Point Citizens Advisory Committee – providing community oversight for the facilities reuse. Activities undertaken by the collaborative will therefore be linked directly into these activities and integrated into the overall planning for the cleanup and restoration of the base.

The Alliance for a Clean Water Front represents San Francisco's environmental community on the Mayor's Infrastructure Task force, developing capital spending and strategic plans for the San Francisco Public Utilities Commission on the City's wastewater and drinking water system. Its participation in this project will assure that the results of the collaborative will be integrated into those activities as well.

C. Provide a description of any citizen monitoring programs that will be part of this project.

The proposed program places a heavy emphasis on a wide variety of citizen monitoring activities:

Working under the supervision of the Bayview Hunters Point Community Advocates and as a complement to the water sampling and biological monitoring portions of the Bayview-Hunters Point watershed project, Clean Water Fund proposes to utilize the extensive canvass experience of Clean Water Action, our sister organization, to compile a historical and cultural inventory of the Yosemite Creek/Slough watershed. Many BVHP community elders recall a vibrant, functioning ecosystem in the Slough as recently as the early 60's. This valuable collective memory is a critical source of both information and inspiration as we move toward creating a vision for restoring this watershed. The Clean Water Action canvass staff will develop a process for conducting this inventory, in addition to providing training workshops for community members who are interested in participating in this aspect of the project.

Working with its collaborative partners, the Bayview Hunters Point Community Advocates, Literacy for Environmental Justice, and the Golden Gate Audubon Society, Clean Water Fund will coordinate a project to educate and train Bayview-Hunter's Point community members on issues of water use efficiency and water conservation. A number of grassroots environmental groups, including the Alliance for a Clean Waterfront and Clean Water Fund, have been working to persuade the City of San Francisco to develop a citywide, comprehensive sustainable water management plan. We view this project as an opportunity to educate communities in southeast San Francisco, who face a disproportionate burden of combined sewer overflows that result from a poorly designed and managed water system, about water conservation strategies including the installation of low-flow toilets, and "use water where it falls" programs that integrate urban forestry, and on site water treatment and reuse at major developments. The results of these efforts will also serve as a critical link to the larger CALFED water quality program goals to improve the health of the Bay-Delta system and promote water conservation and recycling.

Working the BVHP Community Advocates, and Literacy for Environmental Justice Golden Gate Audubon Society will perform the wildlife census and habitat assessment with local high school students who will be trained by Golden Gate Audubon members who are expert in bird identification

and by California Academy of Science experts in reptile, amphibian and butterfly identification. Golden Gate Audubon staff will accompany the students on all of the census trips (approximately two monthly for one year). The students will be provided with binoculars and scopes and other materials needed for the census.

Monitoring of water quality will be directed through the University of San Francisco with a focus on local K-12 students. Working with Arc Ecology, BVHP Community Advocates, LEJ and CWA, USF will undertake a community-based sampling program will be developed with teachers at local schools using students from their classes. This will include both science and arts faculty. The science teachers will focus their efforts on water sampling techniques and reasoning for these samples using current scientific understanding of principles of water quality with direction from University of San Francisco faculty. Arts teachers will be used to develop an appreciation for improving water quality and the impact on the local environment. We will also coordinate sampling efforts with local senior citizen groups to get this vital population involved in sampling efforts. Indirectly, we expect communications to develop between the generations so that the younger generation can learn how the creek used to look prior to the post-WWII industrial development. Training on sampling protocols and techniques will be conducted by University of San Francisco personnel. Citizen monitoring programs will focus on two separate populations within the community – K-12 science and art classes and local senior citizen or other adult community groups. This is purposefully selected to promote inter-generational communication regarding the past and present state of water quality in the Yosemite Creek watershed.

LEJ will participate in the development of ongoing monitoring and stewardship programs for this area based on its proven model at the recently created Herons Head Park Wetlands. Yosemite Slough is within four miles of three elementary schools, one middle school, and two high schools. Currently few school groups visit the slough or adjacent Candlestick Park for environmental education programs because there are no facilitated programs for these areas. LEJ's objectives for the youth stewardship component of our proposal are as follows:

- To orient local students to their watershed
- To foster an understanding of the importance of watershed conservation and protection amongst youth.
- To introduce public school students to careers in environmental management.
- To educate students about the flora, fauna, and natural systems of Bay-Delta ecology.

In addition to the school stewardship pilot program, LEJ will team up with Audubon Society to coordinate a watershed monitoring and job training program for eleventh and twelfth grade students at Yosemite Slough. This program will employ between 15-20 youth from southeast San Francisco in an intensive weekly monitoring program.

Ultimately the collaborative will work to develop a **Yosemite Slough Watershed Council** of residents, community-based organizations, citywide and regional environmental organizations, and representatives of local government, regulatory agencies and business to implement the recommendations of the above stated activities in the second phase of the program.

D. What monitoring protocols will be used, and are they widely accepted as standard protocols?

Sample locations will be selected to effectively cover the complete Yosemite Creek watershed. In evaluating locations for sampling, we will sample up- and down-gradient of major industrial areas and at selected locations along the length of the creek. We will sample both up- and down-gradient of major tributary combinations (up-gradient of major forks within the watershed) and at the mouth of the creek draining into San Francisco Bay-Delta.

All water and solids analyses will be based on either American Public Health Association (APHA) protocols or US EPA standard methods. Field sampling will be conducted with Hach (Loveland, CO) field sampling kits or equivalent for alkalinity, ammonia, BOD_5, COD, fecal coliform, conductivity,

DO, nitrate, nitrite, pH, temperature, total phosphate, total suspended solids, and turbidity. Standard methods for the treatment of water and wastewater (APHA, 1998) will be followed for testing color, odor, complete solids analyses and visual observations for organic phase or other noticeable contaminants. Flow-rate or discharge rate of the creek will be determined using a produce that estimates cross sectional area and the mean velocity of the creek (Platts et al., 1983; Rantz et al., 1982). To estimate flow rate, the creek will be divided equally into 6-10 equally spaced segments normal to creek flow with width measured. This number of measurements is generally sufficient for reasonable estimates of discharge rate (Gray, 1999). At each panel location, the depth of the creek and the velocity at 60% of depth will be measured. The location of each sample will be monitored using the global positioning system, which will be provided by USF.

Some precision of data analyses is sacrificed using these field sampling kits, however, immediate field sampling reduces errors in analyses due to improper or incomplete preservations techniques, allows for involvement of K-12 students in the analyses as the procedures are less complicated and not requiring of advanced degrees in analytical chemistry. Such analyses are much less expensive yet produce results that are sufficiently accurate to evaluate changes in the regional water quality due to redevelopment of the neighborhood.

A quality assurance program will be developed and implemented for this assessment in accordance with US EPA guidelines (US EPA, 1996). While volunteer monitoring programs are not suitable for professional studies or accredited laboratory test, they are appropriate cases for: 1) establishing baseline conditions, 2) determining water quality trends, and 3) identifying current and emerging problems (US EPA, 1996). The quality assurance project plan format includes: 1) project description, 2) organization and responsibility, 3) quality assurance objectives, 4) sampling procedures, 5) sample custody documentation, 6) calibration, 7) procedures, 8) data reduction, 9) initial quality control checks, 10) system audits, 11) preventive maintenance, 12) corrective action, and 13) reports. This guide provides direction for ensuring that trained citizens can produce reliable data to meet specific monitoring objectives.

E. Describe how the type and manner of data collection and analysis will be useful for informing local decision-making?

Once the data is collected and analyzed, students will enter data into the California Academy of Sciences San Francisco Natural History and the US EPA's STORET database. The dissemination of the data will include presentations by the participating students at local scientific conferences; presentation of data analyses in scientific journals; sharing of information with the Infrastructure Task Force and SFPUC; and the integration of the analysis into the community information center recently funded by the San Francisco Department of the Environment for the BVHP Community Advocates offices on Third Street in the heart of the neighborhood.

6. If this project is to develop specific watershed conservation, maintenance or restoration actions, describe the scientific basis for the action(s) described in the proposal.

Include the following:

A. Any assessment of watershed condition(s) that has already been developed by you or others.

As stated above, Federal, State, and Local agencies are engaged in uncoordinated assessment and development planning processes within the watershed. This project will utilize the data collected by these entities as well as inform their ongoing processes.

B. Previous assessment(s) used to establish your project goals and objectives, or to inform the basic assumptions of your proposal.

The Golden Gate Audubon Society has conducted yearly Christmas Count Bird surveys of many parts of the Yosemite Slough Watershed for approximately 15 years. The San Francisco Regional Water

Quality Control Board has had toxic studies done on a site in the Candlestick Point State Recreation Area that has been identified as a site for wetland restoration and a conceptual wetland restoration plan has been developed. Further development of this conceptual plan is currently underway by the State Parks Foundation. North of the Slough, the Navy has been ordered by the regulators to undertake an ecological risk assessment for the southern portion of the Hunters Point Shipyard as part of its ongoing remedial program. The SFPUC has yet to commence the USEPA funded studies to identify stormwater treatment strategies for Candlestick and Hunters Point. Data from all these assessments will be very helpful to the analysis done by the collaborative for Yosemite Slough.

Our monitoring program will provide further information that will enhance the planning for this wetland restoration project. It is intended that the assessments will be used to educate the community and provide scientifically obtained census data on wildlife, water quality, storm water and sewage transport and treatment that will help the community develop its watershed plan based on sound science. It is intended that this assessment will be used to educate the community and influence plans for redevelopment with an emphasis on preserving or improving the water quality index of the creek, the habitat surrounding the area, and promote mitigation of ongoing water quality impacts from runoff and sewage and demonstrate the great potential for wildlife habitat improvements through wetland and creek restoration by developing a community-based wildlife census program.

C. A description of the scientific assumptions used to develop the project goals, objectives and proposed actions, and the degree to which those assumptions are widely accepted (both in the science community as a whole, and in the watershed community).

D. A discussion of how the proposed actions are (are not) consistent with the scientific assumptions and previous assessments completed in the watershed.

E. A description of what baseline knowledge was used to support the management actions described in the proposal, or the likelihood that the management actions will generate more robust baseline knowledge.

The methods and processes to be used to implement the activities undertaken in this phase of the program have been described above. The success of the overall project goal of developing a community-based watershed plan for the Yosemite Slough Watershed is dependent upon having sound scientific information upon which to build a watershed plan. There is currently no knowledge of baseline environmental conditions.

The detailed water quality assessment program will develop two years of scientific data upon which to base future changes in water quality for the Yosemite Creek basin. The frequency of data analysis and the diversity of parameters measured will provide a statistically significant database upon which to make future evaluations of watershed improvement or degradation. Additionally, we will attempt to correlate spatial changes in water quality with predominant land use and use this correlation to evaluate non-point source pollution impacts on the Yosemite Creek.

Water quality criteria were selected based on the proximity of the creek to a wastewater treatment plant and also the proximity to industrial complexes and major roadways. Predominant pollutant sources from the combined sewer overflow for the wastewater treatment plant include: coliform bacteria, nitrogen mostly in the form of nitrates and nitrites, BOD, total solids, total dissolved solids. Predominant pollutants from industrial sources could include: heavy metals, temperature, total dissolved solids, solvents, paints, sandblast grit (metal and plastic), and industrial chemicals. Predominant urban sources could include: nitrates, phosphates, total dissolved solids, total suspended solids, BOD, salinity or specific conductance, heavy metals.

The creation of a wetland at Pier 98 just north of Yosemite Slough has been warmly received by the community and is the site of extensive environmental education programs. The historic Yosemite Slough watershed was once rich in wetlands, streams and wildlife. The wetlands and streams provided critical water quality functions in addition to wildlife habitat values. It is widely

accepted that wetlands and riparian corridors perform great water quality and wildlife habitat functions. If redevelopment occurs in the community great water quality and habitat values will be provided if wetland and creek restoration is included within the planning process.

Wetland restoration is already in the planning phase at Yosemite slough within Candlestick Point State Recreation Area. Additional wetland restoration and creek restoration will greatly improve water quality and habitat values. The wetland restoration at Yosemite Slough was decided upon when the community created the Master Plan for the Candlestick Point State Recreation Area.

Golden Gate Audubon Christmas Count bird surveys over 15 years have demonstrated extensive bird use of this area. But this is a snapshot approach. A year long census will give decision makers a greater sense of the potential for improved wildlife functions of the site and may also imply water quality problems if bird and other wildlife populations show significant differences over the census time frame.

The potential multiple urban and industrial non-point sources in this local region result in a wide selection of parameters to measure for an accurate watershed assessment. **The wildlife-monitoring component of this proposal will provide an important element of this scientific baseline and in combination with the water quality element will enable the community to undertake a well-informed planning process**.

7. How will the proposal address multiple CALFED objectives (see Section I) in an integrated fashion, with emphasis on water supply reliability, water quality, ecosystem quality, and levee stability objectives CALFED has established for Stage 1 of the program?

A. Explain how the proposal will help define and illustrate relationships between watershed processes (including human elements), watershed management, and the primary goals and objectives of the CALFED (see Section I).

Subsequent stages of implementation of the restoration plan will involve projects addressing water use efficiency and conservation, water quality, and ecosystem restoration efforts; this will provide an on-going opportunity to engage CALFED programs in these areas. The project partners and advisory board will rely upon CALFED programs to help develop and fund watershed management and restoration activities. Local community partners will be members of the Environmental Justice Coalition on Water and may serve as representatives on various advisory boards within CALFED's programs.

The overall goal of the project is to address water quality impacts and beneficial uses of the Yosemite Slough watershed and the San Francisco Bay-Delta. In addition, the restoration plan will provide a blueprint for implementing restoration and creation of aquatic and terrestrial habitats in the watershed and the Bay-Delta. The implementation of the restoration plan will improve the overall ecological function of the Yosemite Creek/Slough watershed and the Bay-Delta. By addressing water quality problems in the watershed, the project will indirectly reduce the mismatch between Bay-Delta water supplies and current and future demand for those supplies. The project will not directly address levee system integrity.

The project fully promotes all three implementation priorities for the Watershed Program. The project will develop the long-term capacity of local residents, organizations, and agencies in Bay View-Hunters Point to assess and manage the Yosemite watershed that now adversely impacts the overall water quality and ecological function of the Bay-Delta. These community partners will enhance local capacity and technical ability to undertake watershed assessment and management activities, and will develop and implement restoration efforts in the watershed. The project and community partners will conduct a watershed assessment and restoration plan, which will be the blueprint for future restoration and management projects in the watershed.

The project requests specific technical assistance from CALFED's Science Program to design and implement a project evaluation framework. The project partners also request to work collaboratively

with CALFED to measure and assess social, economic, health, and ecological benefits of the project. The community has expressed an interest in integrating ecological and human risk assessment into the watershed assessment and planning components of the project; we would like to engage CALFED programs and signatory agencies in integrating these assessments. The project will create an on-going relationship with the CALFED Bay-Delta Program by developing a plan for future efforts to address water quality, ecosystem restoration, and water use efficiency/conservation in the watershed. The project will solicit technical assistance and advice from CALFED programs in these areas as a restoration and management plan is developed for the Yosemite watershed.

The project attempts to create a model watershed assessment and restoration/management framework for other urban communities, particularly those communities with environmental justice, cumulative environmental impacts, and with high proportions of people of color and low-income residences. The project partners will document and evaluate the process so that the lessons learned, accomplishments, and challenges can be shared with the CALFED Watershed Program and other urban watershed groups. We would like to work with the Watershed and Science Program to develop a special workshop (possibly as a component of CALFED's Science Conference) on urban watershed management where we and other urban projects can share information, models, and lessons learned. We are exploring the idea of working with the Environmental Justice Coalition on Water to develop a listserve, website, and/or newsletter to share information between this project and other urban watershed efforts.

B. Identify a lead agency for environmental compliance, such as CEQA or NEPA. Describe the program's strategy and timetable on environmental compliance.

Not applicable at this stage of the program.

Task Description

			Labor Rate*	Hours	Total Labor	Supplies	Travel	Materials	Sub-contract**	Match	CALFED	Total
1	ADMINISTRATION	Fiscal Sponsorship (Arc)	$ 30.00	2080	$ 62,400	$ 6,300		$ 6,300			$ 75,000	$ 75,000
		Peer Review (Arc)	$ 30.00	700	$ 21,000						$ 21,000	$ 21,000
2	WATER QUALITY ASSESSMENT	Faculty (USF)	$ 50.00	1040	$ 52,000						$ 52,000	$ 52,000
		Students (USF)	$ 15.00	480	$ 7,200						$ 7,200	$ 7,200
		Non-Personnel			$ -	$ 9,000					$ 9,000	$ 9,000
3	WILDLIFE CENSUS	High School Students (GGAS/LEJ)	$ 15.00	2640	$ 39,600						$ 39,600	$ 39,600
		Youth Coordination (LEJ)	$ 30.00	264	$ 7,920						$ 7,920	$ 7,920
		Field/training staff (GGAS)	$ 30.00	528	$ 15,840						$ 15,840	$ 15,840
		Census Project Management (GGAS)	$ 30.00	200	$ 6,000						$ 6,000	$ 6,000
		Educational Consultants	$100.00	225	$ 22,500						$ 22,500	$ 22,500
		Non-Personnel			$ -	$ 4,980		$ 7,000			$ 11,980	$ 11,980
4	WETLANDS RESTORATION	Restoration Consultant	$100.00	2000	$ 200,000					$ 130,000	$ 200,000	$ 330,000
		(GGAS)	$ 30.00	500	$ 15,000						$ 15,000	$ 15,000
5	SF WASTEWATER INFRASTRUCTURE PLANNING COORDINATION	Infrastructure Task Force Representation (ACW)	$ 30.00	520	$ 15,600						$ 15,600	$ 15,600
		SOFT/PUC Coordination (ACW)	$ 30.00	1560	$ 46,800						$ 46,800	$ 46,800
		Alternative Wastewater Treatment Analysis (ACW)	$100.00	750	$ 75,000						$ 75,000	$ 75,000
6	COMMUNITY EDUCATION & OUTREACH	Watershed Council Organizing (BVA)	$ 30.00	2080	$ 62,400	$ 16,000		$ 16,000			$ 94,400	$ 94,400
		Historical Canvass (CWA)	$ 30.00	1872	$ 56,160						$ 56,160	$ 56,160
	Totals:				$ 705,420	$ 36,280	$ -	$ 29,300	$ -	$ 130,000	$ 771,000	$ 901,000

*Provide benefits/salary percentage here 17%

**Provide a separate itemized budget using this format for subcontracts